

# Fish Habitat & STREAM CLEANUP

FACT  
SHEET  
I-4

**F**ish need healthy places to live, feed and reproduce. For most fish species, these activities usually occur along stream banks and in nearshore areas of lakes. Artificial materials such as concrete rubble, tires or construction debris can be harmful to fish and fish habitat.

Cleaning up a stream involves knowing what to remove and what to leave. While artificial materials should be removed, natural materials such as fallen logs, boulders and plants should be left as they contribute to a healthy fish habitat. It is essential to maintain and improve the quality of fish habitat so that fish will always have healthy places for their eggs to develop, for their young to grow, and for the adults to feed and live. You can help safeguard our fish and protect fish habitat in our streams by carefully planning cleanup activities.

## Be aware of the Fisheries Act and other legislation

The federal *Fisheries Act* provides for the protection of fish habitat. Under the *Fisheries Act*, no one may carry out any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat (HADD), unless this HADD has been authorized by the Minister of Fisheries and Oceans Canada. The Act also states that no one is permitted to deposit a deleterious (harmful) substance into water containing fish. Violations to the *Fisheries Act* can result in substantial fines, and/or the risk of imprisonment. If found guilty, then the violator may also be required to cover the costs of restoring the habitat at the site and/or be required to fulfill other court ordered remedies. Other legislation that may also be relevant is outlined in the introductory Fact Sheet: *Working Around Water? What you should know about Fish Habitat.*

## Contact and approvals

Keep in mind that approval from one government agency does not guarantee that you will be able to obtain approval from another agency. The table on the next page will help you determine which agency (ies) to contact. Remember you should obtain all approvals before starting work.



## Artificial materials can cause serious problems

Stream cleanup is sometimes required in streams where artificial materials have been introduced. Whatever the source of these materials, their introduction can cause a number of serious problems such as:

- ❖ obstructions to fish migration or movement
- ❖ scouring of the natural stream bottom which can lead to a HADD (e.g. disturbing spawning gravel, stirring up sediments and their subsequent deposit further downstream onto spawning gravel)
- ❖ changes to the natural flow of a stream. This can result in stream bank erosion or increases to the water flow that may hinder or prevent fish migration
- ❖ filling in of the natural stream bottom which may result in the loss of spawning and feeding habitat, and the disappearance of hiding places for young fish
- ❖ introduction of toxic substances. This can seriously affect water quality for fish and other aquatic organisms that fish feed on.

## Take care of our streams

Keep in mind when cleaning up streams, fish and fish habitat can be protected by following best management practices.

It is important to know there are a number of significant habitat features that provide shade and cover for fish. These may be features in the water or vegetation hanging overhead from the stream bank. They are important because they keep water temperatures cool, provide insect food for fish and offer protection from predators.

Natural woody debris not only provides cover for fish, it also becomes a food source for plants and insects as it decomposes. These plants and insects are in turn eaten by young fish.

### Therefore, do not remove or displace:

- ❖ trees, bushes, shrubs, plants or tall grasses along any stream bank
- ❖ vegetation growing or floating in any section of the stream
- ❖ overhanging vegetation
- ❖ natural woody debris or rocks from the shoreline or from the water.

## Environmentally friendly practices

As you plan your stream cleanup project, take care to use only environmentally friendly practices.

- ❖ Avoid stream cleanup activities that may change the natural flow characteristics of the stream

- ❖ Do not disturb stream banks and expose underlying soil. Exposing soil can cause silt and sediment to enter the stream resulting in a loss of fish habitat. Take all necessary measures to avoid the release of silt and sediment into the stream. For more information on this issue, refer to the Fact Sheet T-1: *Working Around Water? Fish Habitat & the Effects of Silt and Sediment*
  - ❖ Re-vegetate eroded or disturbed stream banks. For more information on this issue, refer to the Fact Sheet C-4: *Working Around Water? Fish Habitat & Shoreline Stabilization*
  - ❖ Schedule in-water work to avoid impacts to fish during spawning and incubation periods. Contact your local provincial regulatory authority(ies) for advice on project timing
  - ❖ Remove in-stream debris by hand wherever possible
  - ❖ Do not use heavy equipment in the stream
  - ❖ Do not change or disturb the natural stream bottom in any way.
  - ❖ Carry out in-stream cleanup activities during times of low flow
  - ❖ Remove all surplus or waste material from the project area and dispose of it at an approved dump site above the average annual high-water level
- This Fact Sheet does not constitute any DFO or other regulatory authority(ies) approval. It is your responsibility to contact all other appropriate regulatory authorities.

## Working together to protect fish habitat

Help maintain the quality and quantity of fish habitat in our lakes and streams. For more advice on how to work in or around water in an environmentally friendly manner, contact your local agency staff directly.

## Contact information

[www.dfo-mpo.gc.ca/canwaters-eauxcan](http://www.dfo-mpo.gc.ca/canwaters-eauxcan)

Canada 

*Cette publication est également disponible en français.*

## What is Fish Habitat?

Fish habitat is any component of an aquatic system that provides any one of the following:

**Cover:** Cover provides areas for escape from predators, competitors and high flows. Numerous forms of cover exists including substrate, woody debris, undercut banks and even deep water.

**Food:** Fish require food in adequate amounts to survive and reproduce. The type and amount of food produced is dependent upon the substrate and riparian characteristics of the watercourse.

**Reproduction:** Fish require adequate substrate and water quality for successful reproduction.

**Water quality:** Most species have specific temperature ranges in which they can live. Changes to riparian vegetation and width to depth ratio can alter watercourse temperatures. The introduction of sediment, pesticides or any other deleterious substances degrades water quality.

**Migration routes:** Fish often travel great distances within a watercourse for both spawning and feeding. Any activity or structure that blocks migration can detrimentally affect fish populations.

## Contact information – Ontario

Before starting any aspect of a project (including purchasing materials or land), discuss your project with your local Conservation Authority (CA) or, if there is no CA in your area, your local Ontario Ministry of Natural Resources (OMNR) office. If your proposed project is in an area under Parks Canada jurisdiction, contact your local Parks Canada office. These three organizations are all working in partnership with Fisheries and Oceans Canada in Ontario to protect and conserve fish habitat.

Working together to protect and conserve Ontario's aquatic resources




Fisheries and Oceans Canada / Pêches et Océans Canada

[www.dfo-mpo.gc.ca/canwaters-eauxcan](http://www.dfo-mpo.gc.ca/canwaters-eauxcan)



Parks Canada / Parcs Canada

[www.pc.gc.ca](http://www.pc.gc.ca)

 Ontario

[www.mnr.gov.on.ca](http://www.mnr.gov.on.ca)



[www.conservation-ontario.on.ca](http://www.conservation-ontario.on.ca)